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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,883	05/11/2001	Steven J. Vornsand	7187	5408

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Zenith Electronics Corporation  
2000 Millbrook Drive  
Lincolnshire, IL 60069

EXAMINER
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YENKE, BRIAN P

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 02/09/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/852,883

Applicant(s)

VORNSAND, STEVEN J.

Examiner

BRIAN P. YENKE

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 31-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's arguments with respect to claims 31-46 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 2a. Claims 31-35, 37-38, 41-43 and 46 rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani, US 6,532,592 in view of Humpleman et al, US 6,603,488.

In considering claim 31,

a) *the claimed a host device...* is met remote control unit 100 (Fig 1) which includes a communications unit (processor/transmitter/receiver) 107 which transmits an instruction via path 102 to television 101, also remote control unit 100 receives a confirmation signal from television 101 when a valid command is received and then the command is executed, or if the TV 101 receives an invalid command, the TV transmits a signal to the remote 100 an error signal (col 4, line 30-37).

*b) the claimed a television having a television processor, a receiver, and a transmitter...* is met by television 101 which also includes a similar communications unit (processor/transmitter/receiver) communication 106 shown in Figure 1, specified as 105 in the specification (col 4, line 9-18), which transmits a signal back to remote 100 a confirmation signal when a valid command is received and then the command is executed, or if the TV 101 receives an invalid command, the TV transmits a signal to the remote 100 an error signal (col 4, line 30-37).

However, Shintani does not disclose a confirmation signal that the television performed the function (limitation b).

Shintani discloses that the television sends a confirmation signal (second signal) to remote 100 to confirm the receipt of a valid signal and then the TV 101 executes the command (1<sup>st</sup> signal). Shintani also discloses that if the TV 101 receives an invalid command, the TV signals the remote 100 with an error signal (2<sup>nd</sup> signal), and the TV also signals the remote when the TV requires additional input in order to execute (col 2, line 47-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shintani which discloses the acknowledgment of a valid or invalid signal and then executes the command, by also transmitting a confirmation signal that the executed command has been completed, to additionally confirm to the user that the valid command to be executed has been performed.

However, Shintani does not explicitly disclose a "plurality of dispersed televisions" (limitation b). Shintani discloses an entertainment system which includes a television 101 a remote control unit 100 and peripheral devices which have been integrated into the system (col 5, line 29-36).

Although, the use of more than one television is notoriously well known in the art, as also stated by applicant (background pages 1-2), the examiner incorporates Humpleman et al., which discloses a command/control home network which controls more than one television (Fig 10, i.e. Dads TV, Jims TV, Basement TV).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shintani which discloses an entertainment system which includes a television unit 101 with a remote control unit 100, with Humpleman by including more than one television unit into the entertainment system, to control one or more televisions, to provide the user(s) the ability to view/control all the televisions the user(s) has/have access to.

In considering claim 32,  
*the claimed wherein each of the command signal and the confirmation signals comprises an infrared signals is met where the communications between the remote 100 and TV 101 may be infra-red (IR) communication signals (col 4, line 9-18).*

In considering claim 33,

*The claimed further including at least one peripheral device generating a request signal, the host device is responsive to the request signal* is met where a peripheral device such as a mini-disk player (MDP) sends it's command set information to the television 101, where the television 101 in turn transmits the command set to the remote control 100, once the remote has received the command set, the remote will display the list of available commands for the MDP (peripheral device) (col 5, line 44-49).

In considering claim 34-35,

Shintani does not explicitly disclose a video cassette recorder, nor a digital video disc player as a peripheral device in the described invention. Shintani does disclose integrating new components into the television entertainment system. Shintani disclose a peripheral device such as a mini-disk player (MDP) (col 5, line 29-35) which has been added to the entertainment system.

However, Shintani does disclose in the background of the invention that peripheral devices such as video cassette recorders, video disk players and audio equipment are connected to a television set (col 1, line 14-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shintani which discloses an entertainment system including a TV and a mini-disk player by also including a video cassette recorder and a digital video disc player, as done conventionally to provide the user ability to control/use a variety of conventional devices in conjunction with the television.

In considering claim 37,

*The claimed wherein the host device is a television remote control unit* is met by remote control unit 100 which controls the television 101 (Fig 1).

In considering claim 38,

*The claimed processor* is met by the television 101 which receives, transmits and processes the signals between the peripheral devices and the remote.

Although, Shintani does not explicitly disclose a timer, Shintani does disclose the control via transmission/reception of peripheral devices which are integrated into the entertainment system, thereby being able to control multiple devices in a logical/desired sequence.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shintani which discloses the acknowledgment of a valid or invalid signal and then executes the command, by also transmitting a confirmation signal that the executed command has been completed using a timer within about .1 or .5 seconds, to additionally confirm to the user that the valid command to be executed has been performed, by transmitting the command signal after the command is carried out, where the response time can be varied based on the system/design (i.e. one-room, multi-rooms), preferably in a time period to inform the user that an action has been

In considering claim 41,

Shintani does not specifically disclose the host processor (remote) generating an error signal in the event a confirmation signal is not received.

Shintani discloses that the television sends a confirmation signal to remote 100 to confirm the receipt of a valid signal and then the TV 101 executes the request signal. Shintani also discloses that if the TV 101 receives an invalid command, the TV signals the remote 100 with an error signal, and the TV also signals the remote when the TV requires additional input in order to execute (col 2, line 47-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shintani, which discloses the reception of request signals via the remote, by controlling the TV to execute a command based on a valid request signal or requesting additional information in the event the TV requires additional information to execute a command, by ensuring that the command is executed prior to trying to implement another command (valid or invalid), in order to provide the user an efficient viewing environment and notifying the user on an command basis whether a request is valid/invalid and performed, before permitting the user to implement another command (which may be valid or invalid).

In considering claim 42,

*a) the claimed transmitting a command signal from a host device ...* is met remote control unit 100 (Fig 1) which includes a communications unit (processor/transmitter/receiver) 107 which transmits an instruction via path 102 to television 101,

*b) the claimed receiving at the host device confirmation signals* is met by remote control unit 100 receives a confirmation signal from television 101 when a valid command is



received and then the command is executed, or if the TV 101 receives an invalid command, the TV transmits a signal to the remote 100 an error signal (col 4, line 30-37).

However, Shintani does not explicitly disclose a "plurality of dispersed televisions" (limitations a/b). Shintani discloses an entertainment system which includes a television 101 a remote control unit 100 and peripheral devices which have been integrated into the system (col 5, line 29-36).

Although, the use of more than one television is notoriously well known in the art, as also stated by applicant (background pages 1-2), the examiner incorporates Humpleman et al., which discloses a command/control home network which controls more than one television (Fig 10, i.e. Dads TV, Jims TV, Basement TV).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shintani which discloses an entertainment system which includes a television unit 101 with a remote control unit 100, with Humpleman by including more than one television unit into the entertainment system, to control one or more televisions, to provide the user(s) the ability to view/control all the televisions the user(s) has/have access to.

However, Shintani does not disclose determining at the host device a failure to receive a confirmation signal from one or more of the televisions (limitation c).

Shintani discloses that the television sends a confirmation signal (second signal) to remote 100 to confirm the receipt of a valid signal and then the TV 101 executes the command (1<sup>st</sup> signal). Shintani also discloses that if the TV 101 receives an invalid

command, the TV signals the remote 100 with an error signal (2<sup>nd</sup> signal), and the TV also signals the remote when the TV requires additional input in order to execute (col 2, line 47-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shintani which discloses the acknowledgment of a valid or invalid signal and then executes the command, by also transmitting a confirmation signal that the executed command has been completed, to additionally confirm to the user that the valid command to be executed has been performed.

In considering claim 43,  
*the claimed wherein each of the command signal and the confirmation signals comprises an infrared signals* is met where the communications between the remote 100 and TV 101 may be infra-red (IR) communication signals (col 4, line 9-18).

In considering claim 46,  
Shintani does not specifically disclose the host processor (remote) generating an error signal in the event a confirmation signal is not received.

Shintani discloses that the television sends a confirmation signal to remote 100 to confirm the receipt of a valid signal and then the TV 101 executes the request signal. Shintani also discloses that if the TV 101 receives an invalid command, the TV signals the remote 100 with an error signal, and the TV also signals the remote when the TV requires additional input in order to execute (col 2, line 47-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shintani, which discloses the reception of request signals via the remote, by controlling the TV to execute a command based on a valid request signal or requesting additional information in the event the TV requires additional information to execute a command, by ensuring that the command is executed prior to trying to implement another command (valid or invalid), in order to provide the user an efficient viewing environment and notifying the user on an command basis whether a request is valid/invalid and performed, before permitting the user to implement another command (which may be valid or invalid).

2b. Claims 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani, US 6,532,592, Humpleman et al, US 6,603,488 in view of Schindler et al., US 5,900,867.

In considering claim 36 ,

Neither Shintani nor Humpleman disclose the use of a personal computer as the host device.

Shintani and Humpleman discloses the use of a remote 101 ideally with a display and with keys 104 to transmit/receive information to/from the TV 100 (including a plurality of TV's) and other peripheral devices that are integrated into the entertainment system.

The incorporation of a PC (personal computer) or home computer into an entertainment system is conventional in the art.

Thus, the examiner takes incorporates Schindler et al., US 5,900,867, which discloses a personal computer 118 which is able to transmit/receive information to centrally controlled entertainment system 110 (Fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/utilize in Shintani which discloses a system where a remote can transmit/receive information to/from a TV and integrated peripheral devices to also integrate a PC/home computer into the entertainment system to transmit/receive information from the television to provide the user the ability to control not only a personal computer if available but also the TV and other peripheral devices via the PC/home computer, thereby providing the user a PC with full remote functionality.

2c. Claims 39 and 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani et al., US 6,532,592, Humpleman et al, US 6,603,488, in view of Redford et al., US 5,839,905 and Escobosa et al., US 5,537,463.

In considering claims 39 and 44,

Shintani and Humpleman discloses a system where the transmitting/receiving of signals are performed via a communication line 102, which may be IR, RF, ultra-sonic

or combinations thereof, which can communicate to one or more TV's and other peripheral devices.

However, Shintani/Humpleman does not specifically disclose a 1200 baud, 8 bits byte, 1 start bit, 1 stop bit, no parity format packet modulated onto a 40 KHz carrier wave.

There are multitude of interface available to the user/designer, i.e. RS-232, RS-422, RS-423 and RS-485, of course based upon the needs of the user and equipment/peripheral devices being used.

Thus the examiner incorporates Redford et al., US 5,839,905 which discloses (col 20, line 21-31) transmitting infrared signals via a remote to host devices which utilizes the infrared RS232 serial link at 1200 baud modulated with a 40KHz carrier.

Although, Redford does not disclose the specifics on the RS-232 interface, the examiner incorporates Escobosa et al., US 5,537,463 which discloses (col 8, line 43-53) that the conventional RS-232 interface packet includes one start bit, one stop bit, 8 data bits and no parity.

Therefore, it would have been obvious to one of ordinary skill in the art to modify/utilize in Shintani/Humpleman which discloses the transmitting/reception of infrared signals via a remote 100 and television 101 to also include the controlling of other peripheral devices, by using a RS-232 interface as done by Redford, to transmit/receive information from the TV/remote and peripheral devices, where the data at 1200 baud modulated with a 40KHz, which includes the conventional RS-232 format as taught by Escobosa to include a packet with one start bit, one stop bit, 8 data bits

and no parity, would provide the user/designer an existing transmission/reception scheme/interface in controlling the television and other peripheral devices.

2d. Claims 40 and 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani et al., US 6,532,592, Humpleman et al, in view of US 6,603,488 Redford et al., US 5,839,905, Escobosa et al., US 5,537,463 and Launey et al., US 5,086,385

In considering claims 40 and 45,

The combination of Shintani, Humpleman, Redford, and Escobosa does not disclose the specifics on the RS-232 interface connection, to include a command identifier byte. Escobosa does disclose a byte count, data bytes, and the checksum byte (col 8, line 43-53), which meets the claimed *data value byte* (data bytes) *and checksum byte* (checksum byte).

Shintani discloses a system where the transmitting/receiving of signals are performed via a communication line 102, which may be IR, RF, ultra-sonic or combinations thereof.

Redford et al., US 5,839,905 discloses (col 20, line 21-31) transmitting infrared signals via a remote to host devices which utilizes the infrared RS232 serial link at 1200 baud modulated with a 40KHz carrier.

Escobosa et al., US 5,537,463 which discloses (col 8, line 43-53) that the conventional RS-232 interface packet includes one start bit, one stop bit, 8 data bits and no parity.

Escobosa does disclose a byte count, data bytes, and the checksum byte

(col 8, line 43-53), which meets the claimed *data value byte and check sum byte*.

Thus the examiner incorporates Launey et al., US 5,086,385 which discloses an expandable home automation system which utilizes the RS-232 interface protocol, where the user may use an infrared hand-held remote (22, Fig 1) to command the central processor 10 (host) to perform various tasks, i.e. turn the TV on/off, scan the channels). Launey discloses that a task/command consists of a length byte, a command byte, data bytes and check-sum byte (Table 1, col 29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/utilize in Shintani/Humpleman which discloses the transmitting/reception of infrared signals via a remote 100 and television 101 to also include the controlling of other peripheral devices, by using a RS-232 interface as done by Redford, to transmit/receive information from the TV/remote and peripheral devices, where the data at 1200 baud modulated with a 40KHz, which includes the conventional RS-232 format as disclosed by Escobosa to include a packet with one start bit, one stop bit, 8 data bits and no parity, with Launey et al., in order to use the RS-232 protocol to communicate with devices by using the RS-232 protocol to include a command identifier byte, which identifies the command to be carried out to provide the user/designer an existing transmission/reception scheme/interface in controlling the television and other peripheral devices via a remote control.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, please see newly attached form PTO-892.
4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks


Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

B.P.Y  
January 28, 2004

  
JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600